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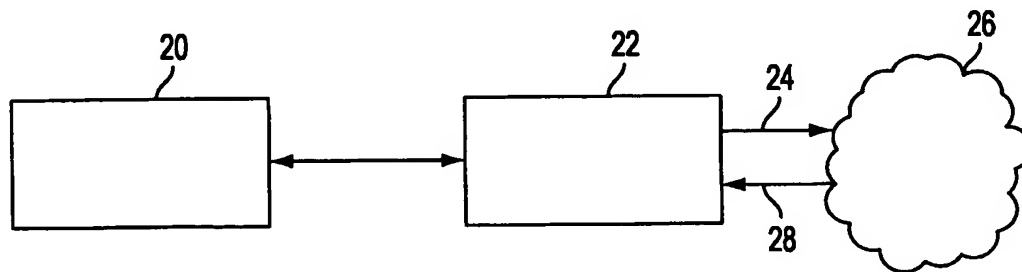
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

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(54) Title: TWO-DIMENSIONAL (2D) ARRAY CAPABLE OF HARMONIC GENERATION FOR ULTRASOUND IMAGING



(57) Abstract: A two-dimensional (2D) array transducer capable of transmitting ultrasonic energy in tissue at a fundamental frequency and of sufficient power to generate a harmonic of the fundamental frequency. In particular, the invention requires that at least 25% of the array elements are excited to transmit the ultrasonic energy, that the transducer array has a checkerboard pattern, that high voltage electronics are housed in a transducer handle, that transmit and receive beamforming electronics are housed in a transducer handle, that high voltage electronics connected to transmit elements and low voltage electronics connected to receive elements in the transducer are housed in the transducer handle, and that elements forming the array are of a single crystal.

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